

AMENDED SET OF CLAIMS

1. (Currently Amended) A ~~metal~~ steel sheet pile comprising:
a flange;

a pair of webs, each of said pair of webs being connected at one end thereof to opposite ends of said flange, respectively, so as to be line-symmetric with each other;

a pair of arms, each of said pair of arms being connected at one end thereof to another end of said pair of webs, respectively;
and

a pair of joints, each of said pair of joints being connected to another end of said pair of arms, respectively,

wherein the sheet pile has a geometrical moment of inertia I of larger than 9,500 [cm⁴/m] and a cross-sectional dimension of said ~~metal~~ sheet pile meets all of the following inequalities:

$$\underline{890 \leq B \leq 920;}$$

$$\underline{280 \leq B_f \leq 350;}$$

$$\underline{210 \leq H \leq 350; \text{ and}}$$

$$\underline{B_f/32.4 \leq t \leq 28,}$$

$$\underline{700 \leq B \leq 1,200;}$$

$$\underline{280 \leq B_f \leq 0.0005 \times B^2 - 0.05 \times B; \text{ and}}$$

$$\underline{-0.073 \times B + 0.0043 \times I + 230 \leq H \leq 380,}$$

where B is an effective width [mm] of said ~~metal~~ sheet pile, Bf is a width [mm] of said flange, H is a height [mm] of said ~~metal~~ sheet pile, and t is a flange thickness [mm] ~~I is a geometrical moment of inertia [cm⁴/m]~~ of said ~~metal~~ sheet pile.

2. (Currently Amended) The steel ~~metal~~ sheet pile according to claim 1, wherein the cross-sectional dimension of said ~~metal~~ sheet pile further meets the inequality $B_f \times 0.6 \leq B - B_f - 2 \times B_w \leq B_f \times 1.1$, where Bw is a width [mm] of said webs in the direction parallel to said flange.

3. (Currently Amended) The steel ~~metal~~ sheet pile according to claim 2, wherein a the thickness of the flange is less than 28 mm.

4. (Cancelled).

5. (Currently Amended) The steel ~~metal~~ sheet pile according to claim 1, wherein said pair of arms are parallel to said flange.

6-10. (Cancelled).

11. (New) The steel sheet pile according to claim 1, wherein said steel metal pile is hot-rolled.

12. (New) The steel sheet pile according to claim 1, wherein said steel sheet pile has a moment of inertia of 9,500-10,500 cm⁴/m.

13. (New) The steel sheet pile according to claim 1, wherein the thickness of the flange is from 10 mm to 28 mm.